Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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FURTHER REPLY COMMENTS OF AMERITECH

1. Introduction.

Ameritech¹ files its Further Reply Comments in this matter. The Further Comments filed herein demonstrate that there is general agreement that, except for cost recovery, the Commission can establish its number portability requirements implementing Section 251(b)(2) of the Act² based upon the record in this proceeding. Further, the parties agree, or at least do not dispute, that the Act mandates:

- 1. All local exchange carriers ("LECs"), both incumbent and new, will have a duty to provide long term number portability under Section 251(b)(2) of the Act:
- 2. Bell Operating Companies ("BOCs") may use remote call forwarding, direct inward dialing trunks or other comparable arrangements to provide interim number portability under Section 271(c)(2)(B)(xi) of the Act;
- 3. Interim number portability required by Section 271(c)(2)(B)(xi) and number portability (long term) required by Section 251(b)(2) of the Act are two different arrangements; and
- 4. The costs of establishing long term number portability under Section 251(b)(2) of the Act must be recovered on a competitively neutral basis from all telecommunications carriers under Section 251(e)(2) of the Act.

The parties also generally agree that Location Routing Numbering ("LRN") is the emerging national standard for long term number portability, and several commentors

¹ Ameritech means: Illinois Bell Telephone Company, Indiana Bell Telephone, Incorporated, Michigan Bell Telephone Company, The Ohio Bell Telephone Company, and Wisconsin Bell, Incorporated.

join Ameritech in recommending that LRN be the national standard for long term number portability.

However, controversy exists on four issues. First, should the Commission establish a national implementation schedule for LRN, and if so, what schedule should be prescribed? Second, should long term number portability be a condition of BOC provision of in-region interLATA service? Third, what mechanism should be used to recover the costs of establishing long term number portability? Fourth, are BOCs required to provide interim number portability at economic rates?

Ameritech will address these issues in detail in these Further Reply Comments. It will demonstrate that LRN is under development and that Chicago will be the "test bed" for the architecture. As such, it is still premature to establish a schedule for LRN deployment. Ameritech will also show that the deployment of LRN should be staggered and that the schedules proposed by the parties are reckless and unrealistic. Ameritech will next establish that under the Act long term number portability is not a condition of BOC entry into the in-region interLATA business. It will then show that cost recovery mechanisms for long term number portability should be developed in a Joint Board. Ameritech will finally prove the BOCs can provide interim number portability at economic rates established in the states.

2. LRN should be the national standard.

Many parties agree that the Commission can facilitate the expeditious and efficient implementation of long term number portability on a national basis if it builds upon what has already been adopted by the industry.³ In this regard, LRN is undoubtedly the emerging national architecture for long term number portability.⁴ In fact, a number of

³ See, e.g.: NARUC at 1-2.

⁴ ALTS at 4, AT&T at 2-3, California Cable Television Association (CCTA") at 3-6, MCI at 3-4, MFS at 3, New York Department of Public Service at 1, Sprint at 4, Telecommunications Resellers Association ("TRS") at 4, Teleport at 7, Time Warner at 7.

commentors⁵ join Ameritech in recommending that LRN be the national standard for long term number portability.⁶

3. LRN installation should be staggered beginning with its successful initial deployment. The proposed schedules are premature and unrealistic.

Some parties⁷ mistakenly claim that LRN is now technically feasible and rashly propose that the Commission immediately mandate its hasty national implementation. Ameritech shares the desire to expeditiously establish long term number portability, and has been a leader of the industry effort to develop LRN. However, any effort at this point to establish a mandatory LRN deployment schedule would be a mistake. As an initial matter, LRN is not a unilateral BOC undertaking. LRN requires the development of software by all switch manufacturers. It also requires participation, resources and commitment from the entire industry, including other LECs, switch vendors and others.

Equally as important, it is premature to establish specific deadlines for LRN at this time, since LRN is not yet operational and its planned deployment in Chicago is the national "test bed" for the architecture. There simply is not sufficient information to even venture an educated guess on how quickly LRN can be generally deployed or how long each installation will take. The software for LRN is just now beginning to be developed by the switch manufacturers, and is not scheduled for release until the second quarter of 1997. Based upon past experience, the first release of the LRN software will need to be tested by the manufacturers, in the laboratory and in test installations in the networks of the participating carriers. The installation of LRN in Chicago can begin only when these

⁵ ALTS at 6 ("minimum benchmark"), AT&T at 2, CCTA at 7, MCI at 4, Sprint 3-4, Teleport at 8 ("preferred approach"), TRA at 4.

⁶ Ameritech disagrees with MCI's assertion [Attachment to Further Comments] that query on release (QOR) should not be considered as an enhancement to the LRN architecture. Ameritech in its Attachment to these Further Comments shows that the arguments offered by MCI against (QOR) are groundless, and OOR is a viable enhancement to LRN.

⁷ For example, AT&T at 5-7. Cox at 8-9, MCI at 6, Sprint at 5, Time Warner at 10.

⁸ See, AT&T at 6.

extensive tests are successfully completed and the industry is convinced that LRN will function properly with all types of calls, is transparent to users, and does not cause post-dialing delay or other service or network problems.

Several parties point out that there are still unresolved operational issues surrounding LRN that must be resolved before the architectures generally installed.

Within the Illinois Industry Workshop established to develop number portability, Ameritech has assumed a leadership role on subcommittees actively resolving these issues.

In Illinois, some compromises were made by the industry to the initial technical requirements for LRN to permit its accelerated deployment. Acknowledging the limitations of initial releases of software, several highly desirable enhancements to basic LRN were deferred until later software releases. In addition, it is still unknown whether the switch manufacturers can fully comply with all the initial LRN software requirements in the timeframe requested. As such, the initial deployment of LRN in Chicago is a developmental project, and Ameritech expects that LRN will be refined and enhanced based upon experience.

Second, these proposed deployment schedules are reckless and exceed the resources and capabilities of the industry. ¹¹ In concept, Ameritech agrees with AT&T that national deployment of LRN by the industry should be staggered, both nationally and

⁹ For example, GTE at 5.

¹⁰ Ameritech has chaired the Switch Requirements, SCP Requirements, SMS and Operations subcommittees.

¹¹ For example, Cox (at 9) proposes that LECs be required to implement number portability "within 24 months of Commission rules in the top 100 MSAs." Sprint (at 5) believes that "a fourth quarter 1997 target date for the top 100 MSAs" reflects a balance.

within each region. Ameritech also agrees with AT&T that a reasonable time must be allowed for "acquisition of valuable testing, troubleshooting and deployment information" gained from the Chicago and Atlanta deployments. However, AT&T and these other parties fail to heed this advice, and propose schedules that do not allow a reasonable opportunity to analyze the Chicago and Atlanta installations and to incorporate the less ons learned into LRN before general deployment begins.

Further, these proposed schedules ignore the magnitude of the task required to successfully install an LRN system immediately requiring many simultaneous deployments. The deployment of LRN is an immensely complex task requiring hundreds of steps by the multiple vendors, carriers and the third party administrator. Some of these steps are:

- 1. Testing of the software of each manufacturer.
- 2. Selection of a Number Portability Administration Center ("NPCA") vendor and administrator.
- 3. Installation and testing of the NPAC and its interfaces with each participating network.
- 4. Testing E911 across the NPAC and each participating network.
- 5. Development and testing of rating and billing for each participating network.
- 6. Modification of each carrier's installation, operating, and repair systems and databases.
- 7. Determining and deploying required additional trunking.
- 8. Determining and deploying required additional SS7 links and SCPs.
- 9. Developing and testing network triggers.
- 10. Developing NP AC and carrier operational methods and procedures.
- 11. Developing disaster recovery plans.
- 12. Testing all call types and functions across the NPAC and all networks.

¹² AT&T at 3-8. AT&T proposes that the Chicago and Atlanta deployments should continue to be scheduled for the third quarter of 1997. Thereafter, "at least I MSA in each of the remaining 5 RBOC service regions, and at least 3 additional MSA in Bell South and Ameritech service region, in the fourth quarter of 1997. Deployment could follow in at least 3 more MSAs in each of these RBOC service regions in first quarter 1998" (at 8).

¹³ Id. at 8.

These steps will require considerable time and resources. Ameritech believes that it is premature to speculate on the precise time frame reasonably necessary for the industry to complete a deployment of LRN, or how many simultaneous LRN deployments can be reasonably accommodated by the industry. Rather, Ameritech proposes that these target schedules and timeframes should be established based only after some experience is gained in the successful initial installations of LRN. In the meantime, the industry and the states can determine the geographic area of possible next deployments of LRN, develop implementation plans, and ascertain participating carriers.

4. Long term number portability is not required for in-region interLATA relief for BOCs.

A few parties ¹⁴ urge that the Commission to re-write the Act by adding the requirement that BOCs deploy long term number portability before they may offer in-region interLATA service. These proposals directly conflict with the clear language of the Act and should be rejected. Section 271(c)(2)(B)(vi) of the Act provides that interim number portability through "remote call forwarding, direct inward dialing trunks or comparable arrangements" satisfies this checklist requirement. The Section also provides that once the Commission issues its regulations concerning number portability "full compliance with such regulations" is all that is required. The Section does not envision a delay of the BOCs' provision of in-region interLATA service based upon long term number portability. Congress' intent in this regard is clearly set forth in Section 271(d)(4) of the Act, where the Commission is directed to "not, by rule or otherwise, limit or extend the terms used in the checklist"

5. A cost recovery mechanism should be developed in a Joint Board.

In its Further Comments, Ameritech explains why a cost recovery mechanism should be referred to a Joint Board. Ameritech continues to adhere to this view.

However, if the Commission does prescribe a cost recovery mechanism, it should do so

¹⁴ Cox at 6. See also, CCTA at 8-9, Time Warner at note 20.

in a manner that is consistent with the Act. The Act provides: "[t]he costs of establishing
... number portability shall be borne by all telecommunications carriers on a
competitively neutral basis as determined by the Commission."

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A number of commentors ask the Commission to ignore this plain language of the Act. For example, two new LECs claim that competitively neutral recovery requires allocation of costs based upon lines, ¹⁶ while another, MFS, properly recognizes that an allocation mechanism based upon lines is not competitively neutral "since apportionment based upon line counts fall disproportionately on local telephone carriers and not on all telecommunications carriers"¹⁷

Several parties also advocate creative interpretations of the competitively neutral cost recovery standard that urge that the Commission ignore certain costs or exclude certain carriers from the competitively neutral recovery mechanism. However, there is no showing that these costs are not real costs of establishing number portability, or that the carriers involved are not telecommunications carriers. As such, these proposals are inconsistent with the Act and are nothing more than self-serving attempts to foist the bulk of the costs of number portability on incumbent LECs and their users. These parties interpret "competitively neutrality" to mean a competitive advantage for themselves.

Ameritech believes that Section 251(e)(2) of the Act means exactly what it says—the costs of establishing number portability must be recovered on a competitively neutral basis from all telecommunications carriers. Ameritech submits that in order to meet the competitively neutral standard, any recovery mechanism must at a minimum allocate all

¹⁵ Section 251(e)(2) of the Act (emphasis added).

¹⁶ Teleport at 6, Time Warner at 9.

¹⁷ MFS at 7.

¹⁸ An example is ALTS at 7, Teleport at 5, MFS at 7-8 which seek to exclude any costs incurred by incumbent LEC in establishing number portability. Another example is MFS at 7 which advocates that BOCs recover their number portability costs in charges to other carriers. A third example is TRA at 5 and ALTS at 7 seeks to would limit recover of these costs to end users of local exchange service.

costs of establishing number portability to <u>all</u> telecommunications carriers on a basis that is independent of who incurred the cost, or who uses number portability. Moreover, any formula must place no competitor at an advantage or disadvantage.

6. The Commission should not, order BOCs to provide interim number portability at uneconomic rates.

A few parties urge the Commission to order the BOCs to provide them interim number portability for free or at discounted rates. ¹⁹ Otherwise, they allege, there will be no competitive neutrality. The Commission should reject this argument. Rates for remote call forwarding and direct inward dialing trunks are already being determined by the state commissions at levels they find reasonable, and there is nothing in the Act that even suggests the Commission must preempt those determinations. In fact, the "competitively neutral basis" language cited by these parties as support for their position is contained in Section 251(e)(2) of the Act which has nothing to do with interim portability, which is addressed in Section 271(c)(2)(B)(xi) of the Act. Those two sections contain completely different number portability requirements, as even a proponent of free or discounted rates has acknowledged. ²⁰ Therefore, an order by this Commission to eliminate or further discount interim number portability rates which state commissions already have found to be reasonable is not authorized by the Section 271(c)(2)(B)(xi) checklist.

MCI also complains that the BOCs recover access charges for services they provide in porting access traffic via interim number portability arrangements. ²¹ However, there is no dispute that the BOCs provide switching and transport services and incur costs in porting access traffic. In Illinois, Ameritech is proposing a meet point billing type arrangement where the two LECs involved in terminating ported access traffic

¹⁹ For example, MCI at 8, MFS at 8.

²⁰ See, MCI at note 7.

²¹ MCI at 7-8.

share the access revenue under meet point billing arrangements. Again, the Commission should reject this proposal that BOCs not be able to recover lawful access tariff rates and permit the is sue to be properly addressed at the state level.

7. Conclusion

The Commission should issue its requirements for number portability based upon the record in this proceeding and prescribe LRN as the national standard for long term number portability. The Commission should reject arguments that long term number portability is required before BOCs can provide in-region interLATA service. It should also address competitively neutral cost recovery of long term service provider number portability costs in a Joint Board and determine that interim number portability should be provided by BOCs at economic rates established by state commissions.

Respectfully submitted,

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ATTACHMENT

Carriers must have the flexibility to deploy long term number portability in a manner which efficiently utilizes network resources. The Commission has historically left detailed implementation decisions in the hands of individual carriers, and has limited their directives in technical matters to issues concerning interconnection and performance requirements (example: The FCC mandated overall call setup delay requirements for 800 service without dictating how such networks were to be deployed). Ameritech takes issue with several of this arguments made in the Attachment B to MCI's Further Comments.

"The call setup to the ported numbers will encounter additional delay since these calls will first be routed to the incumbent LEC . . ."

Additional delay associated with releasing a call back to the originating switch has yet to be identified or measured, and there are ways of minimizing it¹ if it is subsequently deemed unacceptable. Mr. Pathak himself admits that "The additional delay may not be perceptible to the calling user".

"Another undesirable consequence of QOR is the continued reliance of other networks on the incumbent LEC regardless of the number of times a customer has ported his number."

Even the proposed long-term solutions for number portability anticipate, and provide for, routing of ported number calls through the incumbent LEC. This is necessary due to the fact that not all carriers will be capable of supporting LNP queries within their respective networks, especially in the initial years of LNP deployment. Indeed, in many situations, there may be no incentive for smaller IXCs to provision their switches with this capability. Since the efficiencies of QOR are best realized within this same time period (i.e., during the initial years when ported number volumes are low), its consideration is entirely appropriate.

Furthermore, regardless how often a particular number has been ported (and unlike RTP), QOR will result in only <u>one</u> database query and (subsequent) direct routing to the actual serving switch.

"This (QOR) will force new LECs to either implement QOR with the incumbent LEC or perform an LNP query even after the number has been ported to CLEC2."

QOR, as proposed, can be provisioned on an individual basis. This permits the originating carrier to utilize QOR for routes (dialed NXXs) that terminate to a switch that is known to have the capability, and to use the originating-trigger query method in cases where the terminating capabilities are unknown.

"The QOR implementation does not exist in the networks today, and will require extra development over and above what is required by the LRN solution."

¹ The continuity test (COT) can be canceled on an individual route (trunk group) basis.

Annex C to the Call Completion to a Portable Number (CCPN) signaling enhancement has already been introduced within the T1S1 standards subcommittee (T1S1.3 LNP Subgroup), and is expected to go to ballot in June. While some additional software development will be required, this capability employs the use of existing fields within (SS7) signaling messages. At least one major switch vendor has already committed to having this capability available with its initial software release for LRN.

"The QOR capability will also increase cost by requiring extra trunking between the incumbent LEC and other networks which otherwise wouldn't have been needed."

Since the trunk to the incumbent LEC's switch is immediately dropped upon the return of a Release Message (probably less than half a second), little or no additional trunking is required. In contrast, LRN without QOR will force carriers to purchase additional pairs of costly SCPs, even if the volume of ported numbers is insignificant. This is due to the fact that most SCPs are transaction-limited. Without some method of limiting LRN queries, additional SCP hardware will be required simply to handle the query volumes.

"It should also be noted that the SS7 connectivity is required between the networks for the QOR capability to function."

Within the industry, it is universally acknowledged that there will be a loss of efficiency and feature functionality with all long term number portability architectures if end-to-end SS7 connectivity is not available. Furthermore, as stated previously, QOR can be provisioned on a case-by-case basis where SS7 is unavailable, QOR need not be employed.

CERTIFICATE OF SERVICE

I, Todd H. Bond, do hereby certify that a copy of the foregoing Further Reply Comments of Ameritech has been served on the parties listed on the attached service list, via first class mail, postage prepaid, on this 5th day of April 1996.

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